

REMARKS

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

Status of Claims

Claims 53 - 75 are pending in the application. Claims 53 - 75 have been rejected. Claims 53, 55, 61, 68, 70 and 72 have been amended.

Claims 55 and 70 have been voluntarily amended to correct antecedent basis. Claim 72 has been voluntarily amended to correct a grammatical error. These amendments do not narrow the scopes of the claims, nor are they being made for reasons of patentability. The amended claims are not subject to the complete bar against the use of the Doctrine of Equivalents as outlined in *Festo Corporation v. Shoketsu Kinsoku Kogyo Kapushiki Co., Ltd. a/ka/ SMC Corporation and SMt Pneumatics, Inc.*, as the amendments do not narrow the scopes of the claims, nor are the amendments being made for reasons of patentability.

Applicants respectfully assert that the amendments to the claims add no new matter.

CLAIM REJECTIONS

35 U.S.C. § 102 Rejections

In the Office Action, the Examiner rejected claims 53, 61, 68 and 72 under 35 U.S.C. § 102(b), as allegedly being anticipated by Kuchinsky, et al. Applicants respectfully traverse this rejection in view of the remarks that follow.

Kuchinsky discloses an experimental system for multimedia organization and retrieval. In this system, face detection and recognition is provided to assist a user with the annotation process of a volume of photographs by partially automating the process. In the automated part of the process, the following method is performed:

"When given photos that contain faces of new people, the face recognition system attempts to match the identity of the face (see Fig. 3). The user either corrects or confirms the choice; the system then can more accurately match faces to their correct identities in subsequent photos. Once a face is matched to a name, that name will be assigned as an annotation to all subsequently seen photos that contain faces that match the original." (p.499 Col.2 line 19 – p.500 Col.1 lines 1-4).

Kuchinsky uses face detection and recognition to single out only the faces in a group of still images which match the faces of persons previously identified by a user. The entries in Kuchinsky's index are the name-labels assigned by the user to the identified person-images.

Amended claim 53, on the other hand, now recites, *inter alia*:

"identifying generally all sub-images in a group of still images which are recognizable as faces; and

indexing said group of still images according to said sub-images",

and amended claim 68 now recites, *inter alia*:

"receiving a plurality of photographs of a multiplicity of persons in a plurality of scenes, wherein not all of said persons appear in all of said scenes;

analyzing said plurality of photographs to detect generally all faces of said persons in each of said scenes; and

grouping said photographs according to at least said faces of said persons appearing therein."

Amended claims 61 and 72 have similar language to amended claims 53 and 68, respectively.

Kuchinsky does not identify "generally all sub-images in a group of still images which are recognizable as faces" (Claim 53), and does not "detect generally all faces of said persons in each of said scenes" (Claim 68), but rather only identifies and detects faces of

persons which have previously been identified by a user. Furthermore, Kuchinsky does not index "said group of still images according to said sub-images" (Claim 53), and does not group "said photographs according to at least said faces of said persons appearing therein" (Claim 68), but rather indexes the group of still images, and groups the photographs, according to the name-labels assigned by the user to the person-images the user has identified.

Accordingly, Kuchinsky cannot anticipate claims 53, 61, 68 and 72 as amended, and Applicants respectfully request that the rejection be withdrawn.

35 U.S.C. § 103 Rejections

In the Office Action, the Examiner rejected claims 53- 67 under 35 U.S.C. § 103a, as being unpatentable over Patton, et al. (6,408,301) in view of Oh, et al. (Content-Based Retrieval System for Image Using Human Face Information).

The Examiner further rejected claims 68-75 under 35 U.S.C. § 103a, as being unpatentable over Patton, et al. (6,408,301) in view of Kim, et al. (6,546,185).

Applicants respectfully traverse the rejections because a prima facie case of obviousness has not been established.

Applicants respectfully disagree with the Examiner's assertion in section 5, lines 4-8, that Patton discloses:

"a face (recognition unit) to recognize a plurality of faces in a group of still images (See for example, col.4, lines 20-34.); and an indexer to index each said still image of said group of still images according to the faces (recognized) in said still image (See for example, col.4, lines 3-13 and lines 34-60)."

The Examiner concedes that the face recognition unit is not explicitly disclosed by Patton, but:

"is obvious, if not inherent, because face recognition required so as to sort and organize the facial images for enabling easy indexing, searching and retrieving of the images that are related to a particular person, such as Grandma X, See for example, Fig. 3 and 15)."

Applicants respectfully disagree. Patton teaches away from face recognition for "enabling easy indexing, searching and retrieving of the images that are related to a particular

person" (OA section 5, lines 9 – 10), by teaching a method which comprises indexing images according to information files which are associated by a user with the images. As stated in Patton's Abstract (lines 4 - 8), each information file includes:

"...metadata which has been automatically captured and stored and /or input by a user. Metadata is automatically captured via the camera. The user can also input metadata via the camera at the time of image capture..."

Patton's indexing method is also described in his Abstract (lines 10 - 22):

"The user may designate one or more elements of the metadata of the associated information file as an image link for each of the image files, and further the user may specify more than one image link for each of the image files. All of the images having a common image link form a group of images, and the user can determine a sequence of display of all of the digital image files any group. An index is created of all of the image links associated with any of the image files and this index is communicated to the user. The user can, via a selected image link, retrieve the group of images having that associated image link with such group of images being retrieved in the sequence predetermined by the user."

Patton neither discloses nor suggests indexing according to faces recognized in images. As demonstrated further by the quote below, the input of a user is required to provide an association between images of the same person in different photographs, so that they may be recalled during a search for images of that person. According to Patton in Col. 6 line 16, a search through an image index for Grandma X may be conducted according to the word "Grandma X" and not according to her recognized face:

"Turning to FIG. 8, the thumb nail images 23 can then be further sorted by using additional words spoken orally such as, for example, "Grandma X." Then, in response to those spoken words, only those pictures 84 of Grandma X (if they have been indexed with that word) would appear on the monitor 44."

Patton neither teaches nor suggests that images of Grandma X may be recognized according to the particularities of her facial features, but, if at all, according to the words "Grandma X".

Regarding Examiner's statement that both "Patton and Oh, et al." as well as "Patton and Kim, et al.", "are combinable because they are from the same field of endeavor, i.e., image retrieval...", Applicants assert that neither Patton and Oh, nor Patton and Kim, are

combinable, because the method taught by Patton for image retrieval and the method taught by Oh and Kim for image retrieval are divergent. Oh and Kim teach image retrieval based on face recognition, while, as the references quoted above from Patton indicate, Patton teaches image retrieval based on user-provided metadata.

Accordingly, Applicants respectfully assert that independent claims 53, 61, 68 and 72 are allowable. Claims 54 – 60, 62 – 67, 69 - 71 and 73 – 75 depend from, directly or indirectly, claims 53, 61, 68 and 72 respectfully, and therefore include all the limitations of those claims. Therefore, Applicants respectfully assert that claims 54 – 60, 62 – 67, 69 - 71 and 73 – 75 are likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection to independent claims 53, 61, 68 and 72, and to claims 54 – 60, 62 – 67, 69 - 71 and 73 – 75 dependent thereon.

In view of the foregoing amendments and remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Respectfully submitted,



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